

Figure 1. Apparatus to measure surface resistivity.

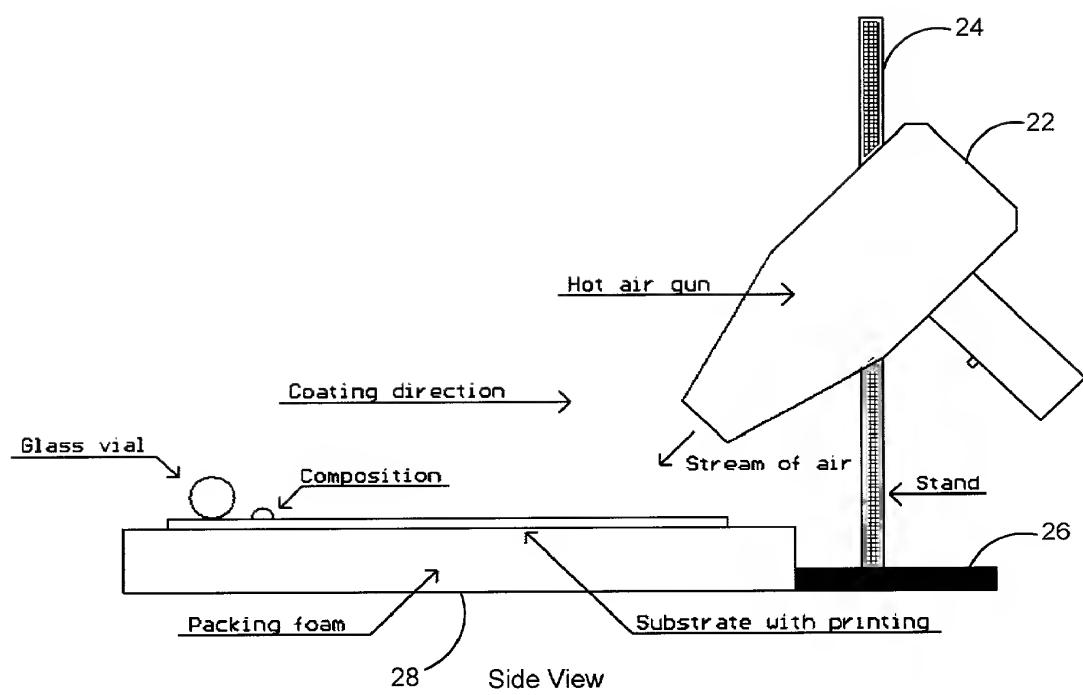


Figure 2A.

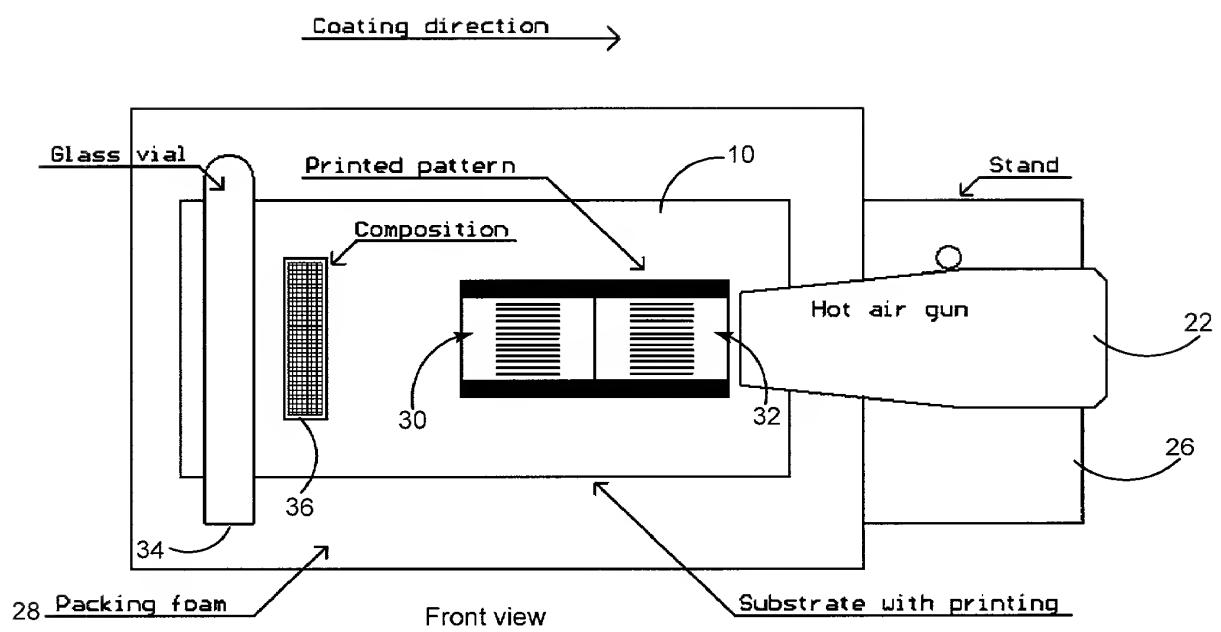


Figure 2B. Coating apparatus.

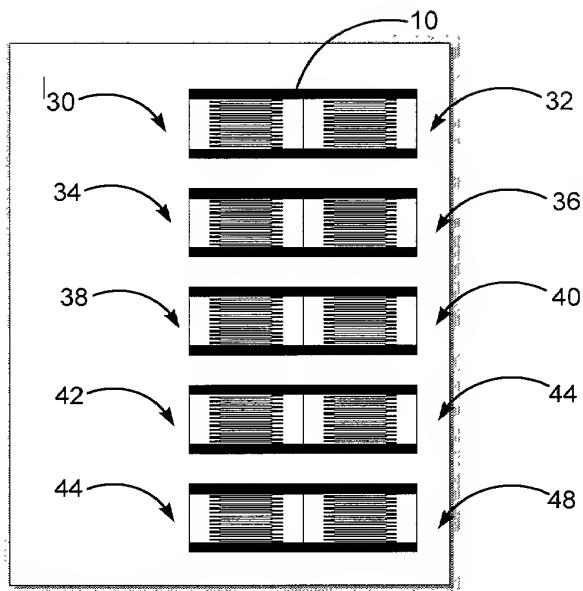


Figure 3. Printed pattern on letter size substrate.

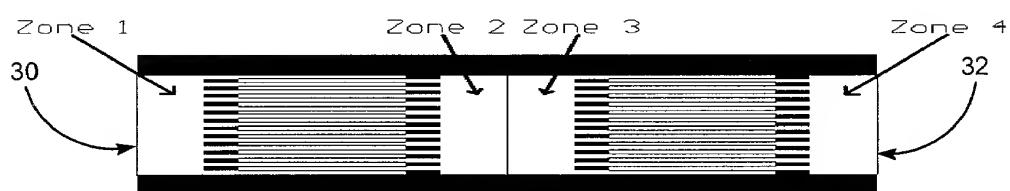


Figure 4. Areas (zones) used for measurement of surface resistivity and resistance.

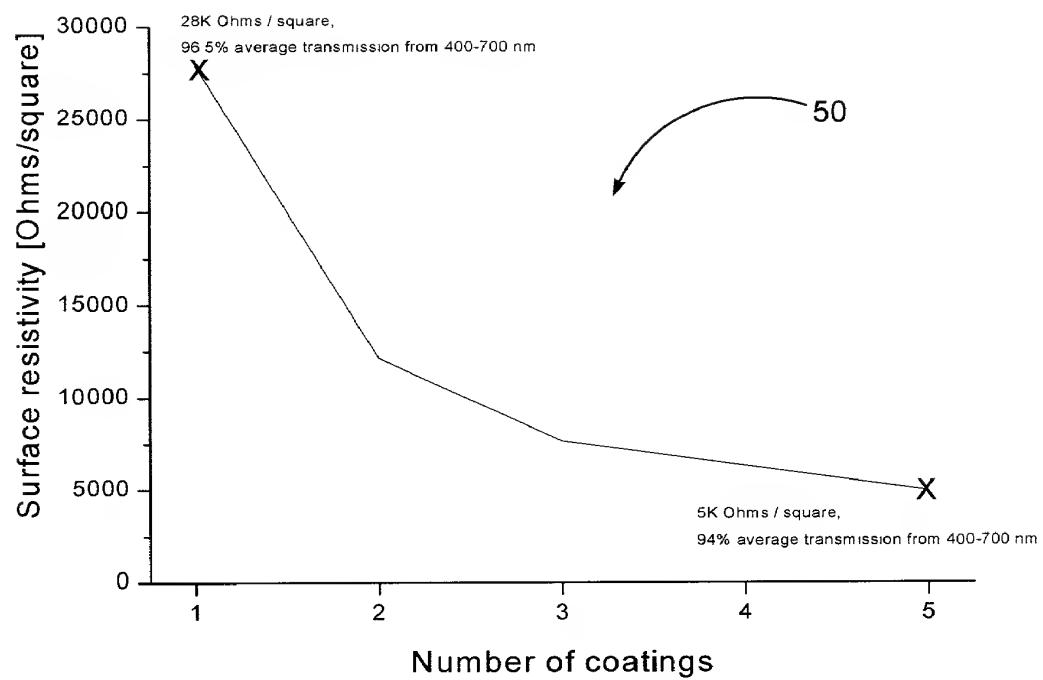


Figure 5. Surface resistivity versus number of coatings.

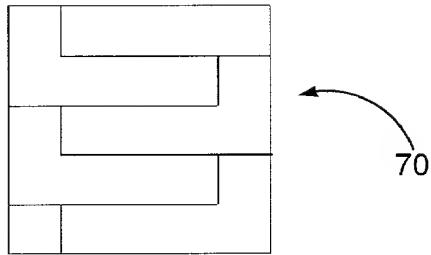


Figure 6. First layer of solar cell.

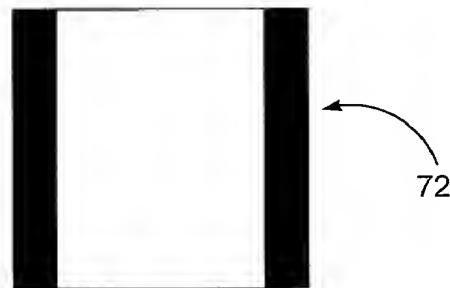


Figure 7. Second layer of the solar cell.

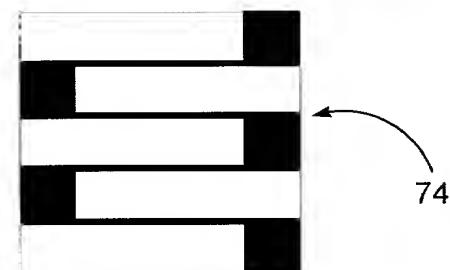


Figure 8. Third layer of the solar cell.

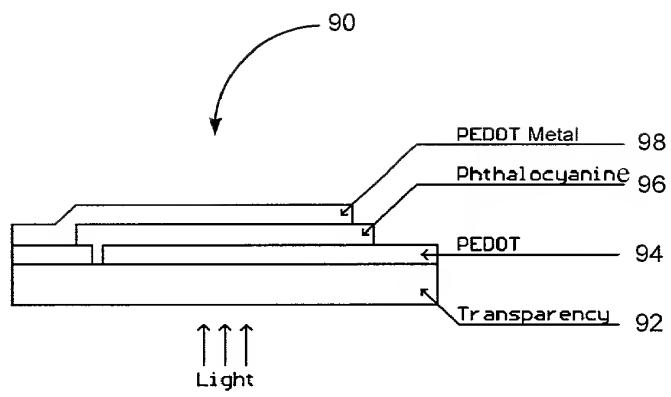


Figure 9. Layer structure of the device.

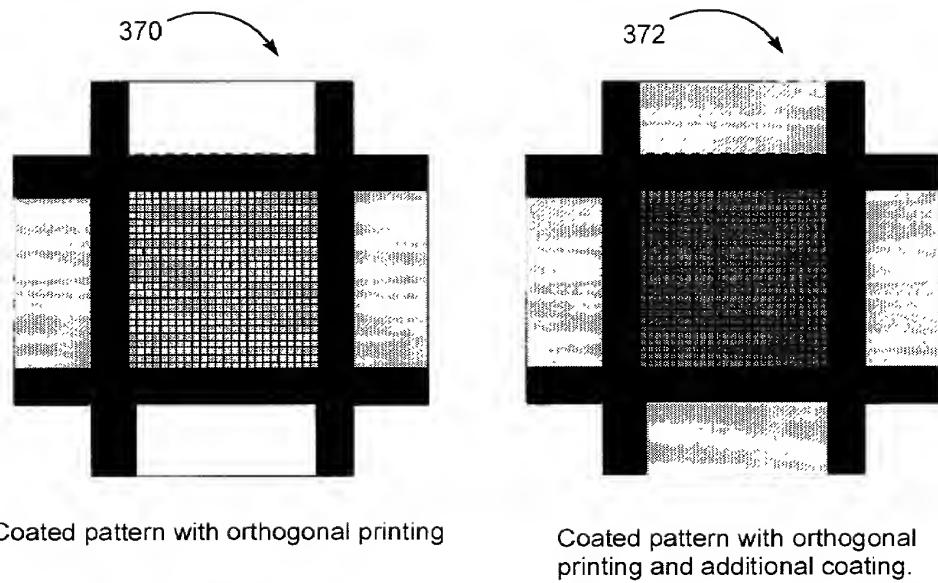


Figure 10.

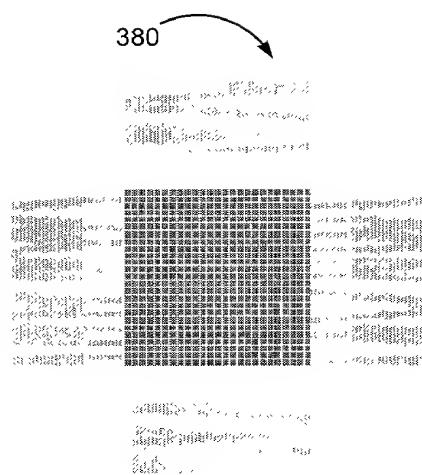


Figure 11.

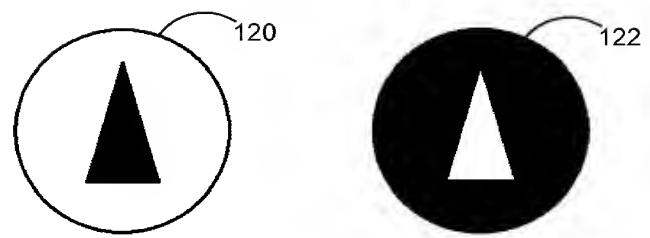


Figure 12. Front side of two wheels.

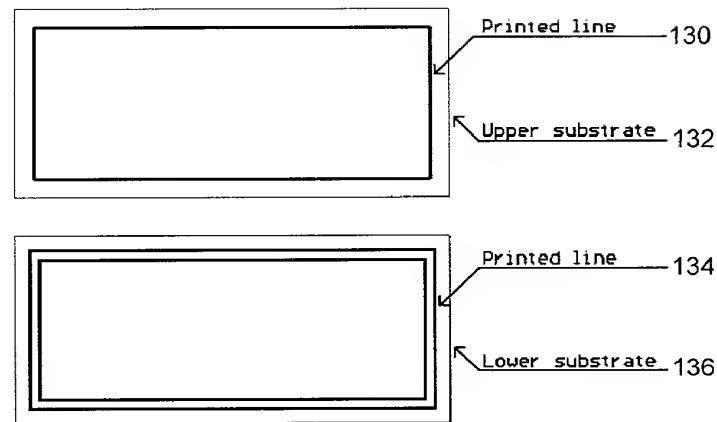


Figure 13.

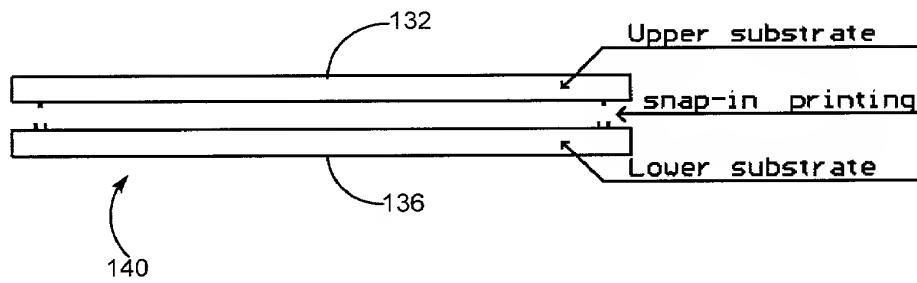


Figure 14.

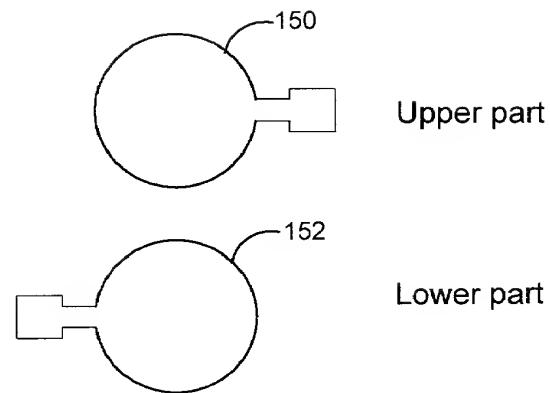


Figure 15.

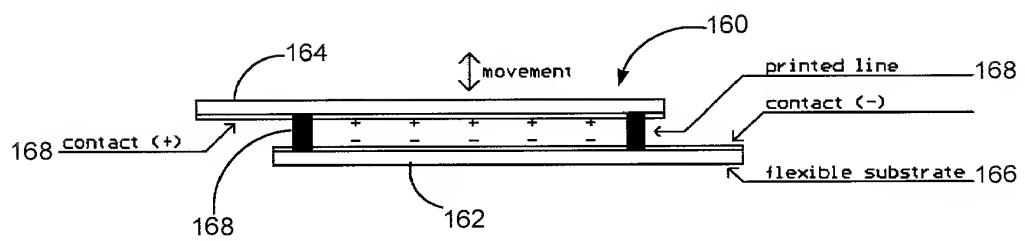


Figure 16.

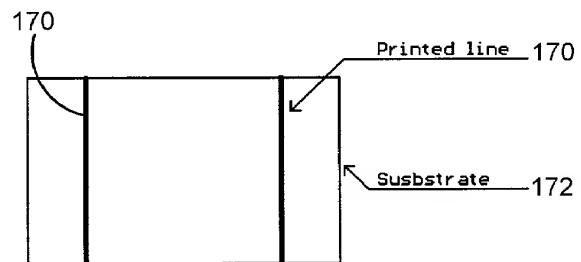


Figure 17.

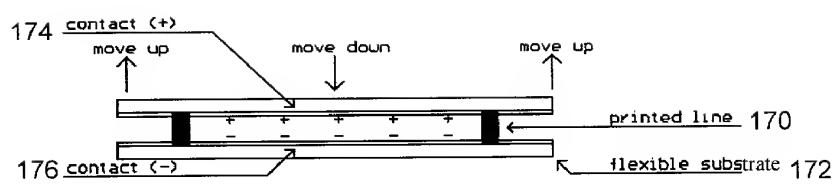


Figure 18.

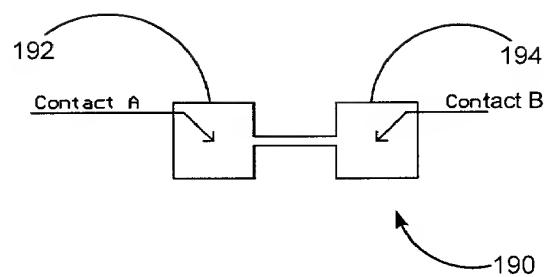


Figure 19.

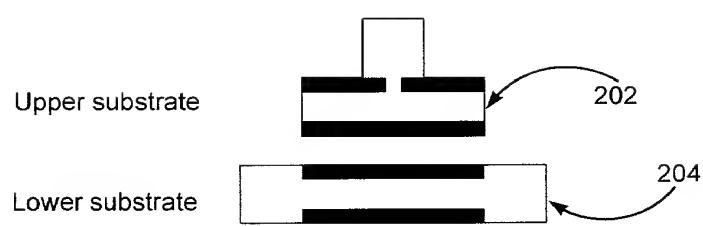


Figure 20.

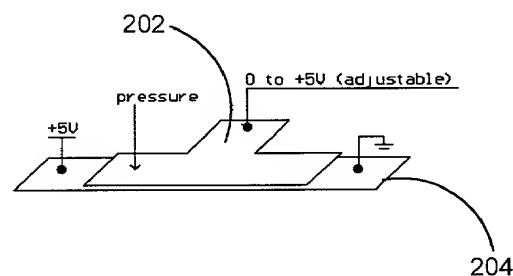
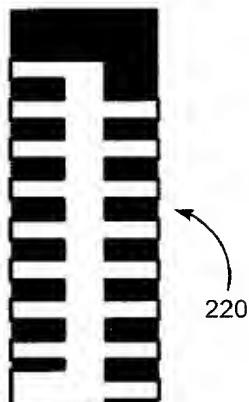
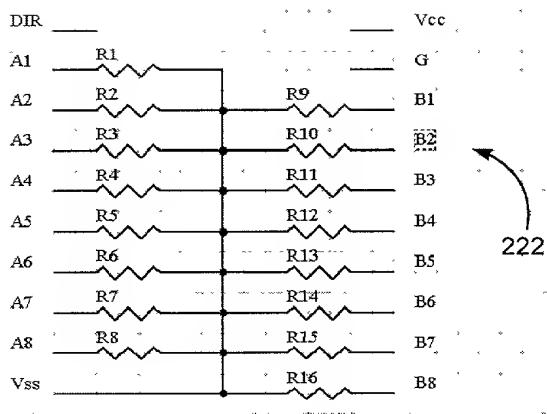


Figure 21.



Resistor pattern

Figure 22A.



Resistor schematic
PIN assignment

Figure 22B.

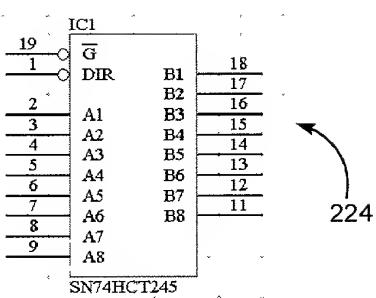


Figure 22C.

00000000000000000000000000000000

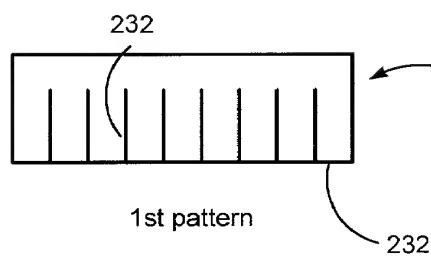


Figure 23A.

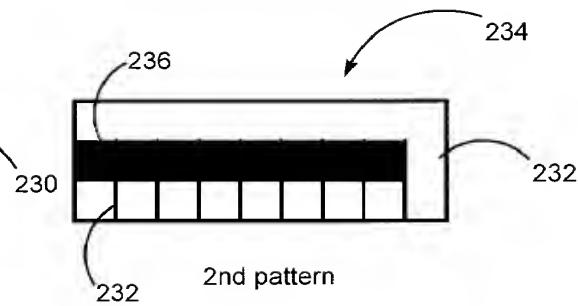
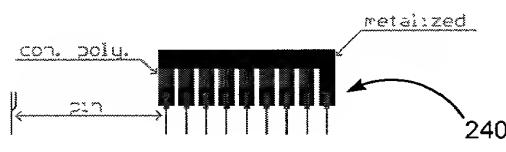
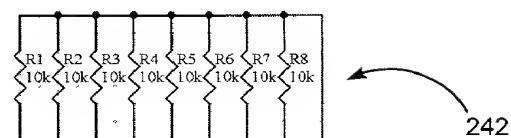


Figure 23B.



Assembly schematic



Circuit schematic

Figure 24A.

Figure 24B.

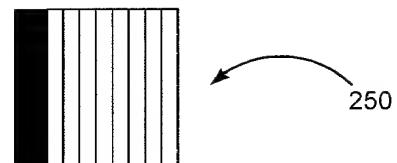


Figure 25.

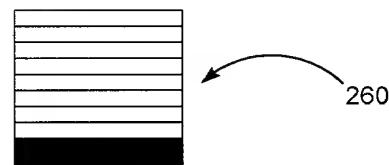


Figure 26.

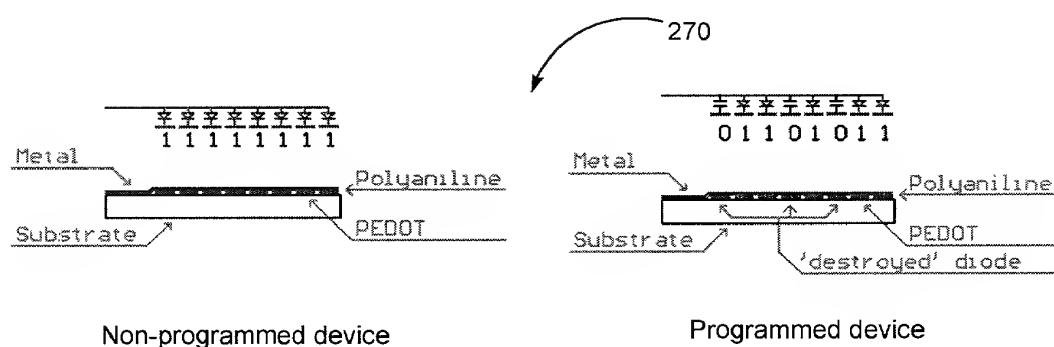


Figure 27.

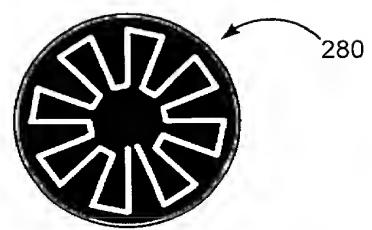


Figure 28.

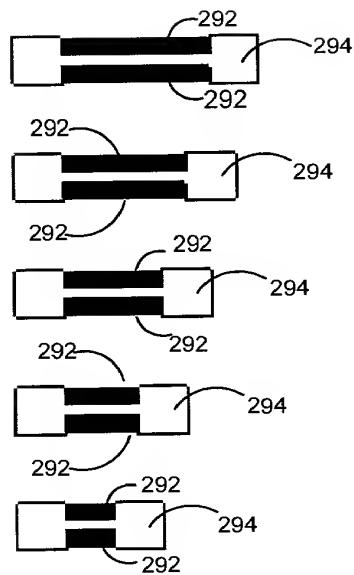


Figure 29. Pattern for resistors.

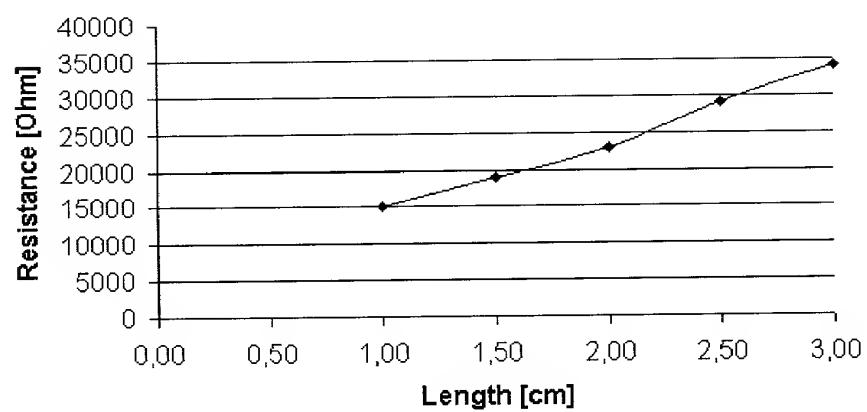


Figure 30. Dependence of the absolute resistance on the length of the resistor.

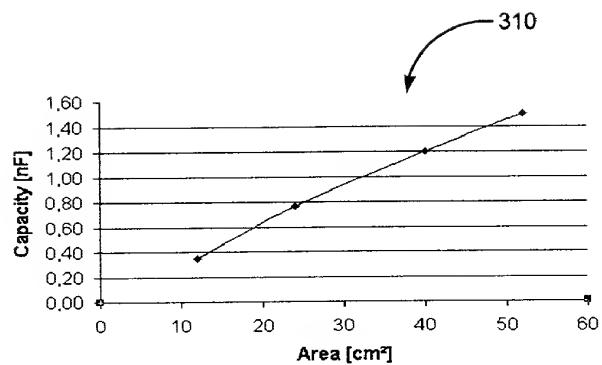


Figure 31A.

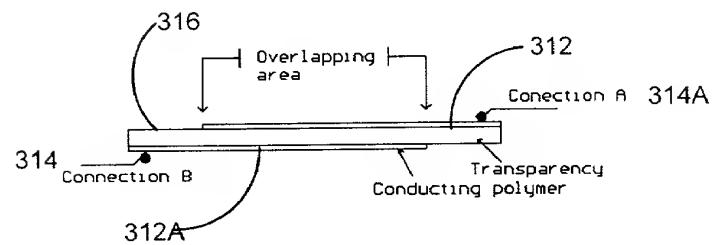


Figure 31B.

Figure 31. Dependence of the capacitance on the size of two insulated, overlapping areas of the conducting polymer PEDOT-PSS insulated from each other.

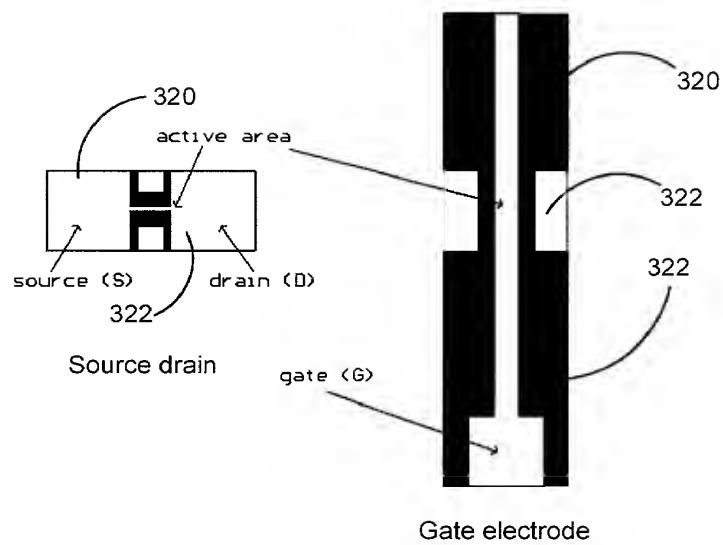


Figure 32. Negative image of a pattern used for the FET-like device.

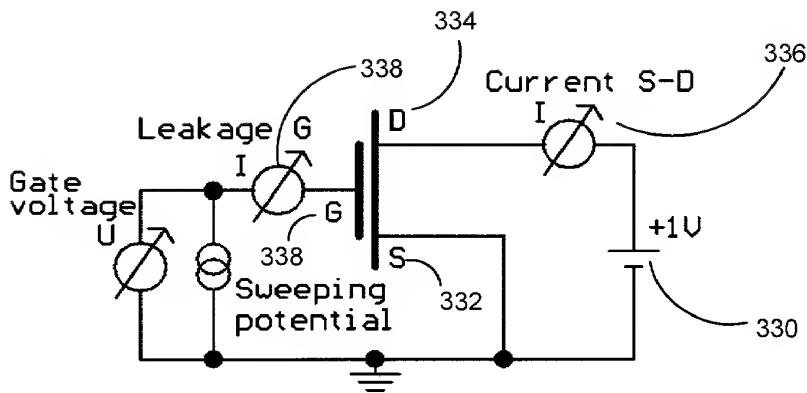


Figure 33. Schematic of the measurement assembly used to characterize the FET-like device.

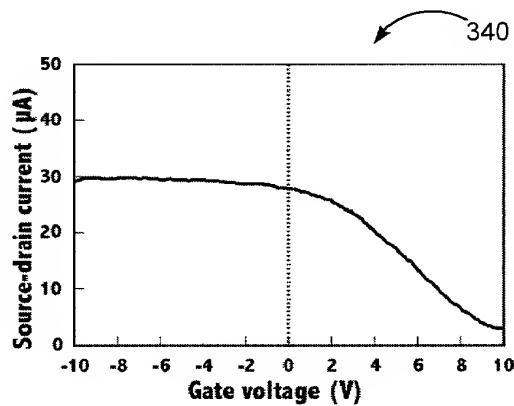


Figure 34. I/U characteristics of the FET-like device.

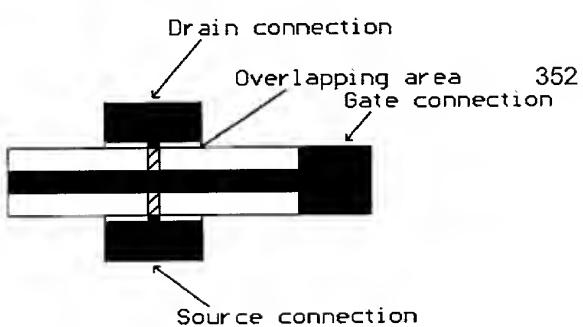
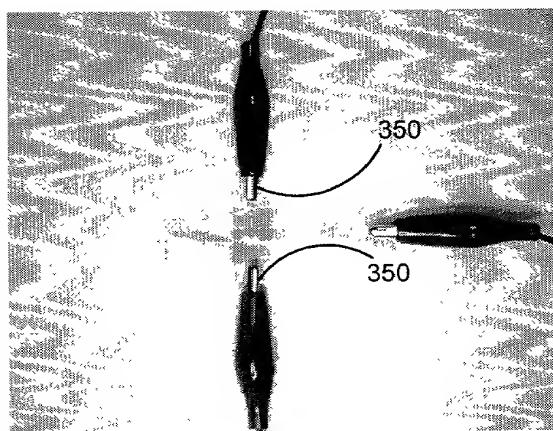


Figure 35. Operational device.

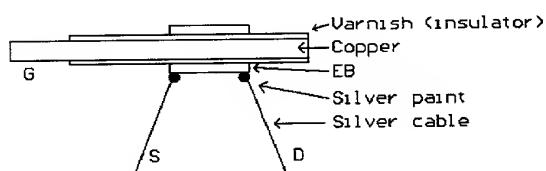
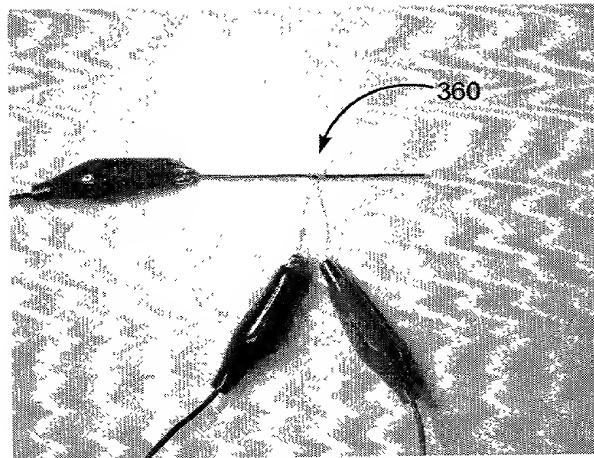


Figure 36. Operational FET-like device made from a coated copper cable, EB, silver paint and silver wires.